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Examiner. As previously stated by the Examiner, Wolgemuth et al does not disclose spring clips, recesses, and indentations. Rather, Wolgemuth et al uses threaded fasteners in a cooling apparatus. Larson discloses a self contained heat-piping system consisting of an evaporator, cooling tubes, and a condenser unit. As shown in Figures 4-6, the evaporator system 5, is self contained system with and O-ring 32 to contain the liquid and vapor states of the coolant. The clips 52 and 54 merely attach the chip 10 to the evaporator 5, as disclosed in column 7, lines 39-44. The clips 52 and 54 do not form a liquid proof seal, as the liquid is completely self contained in the evaporator 5.

THE SCOPE AND CONTENT OF THE PRIOR ART

1. Wolgemuth et al.

a. In general, Wolgemuth et al. discloses a heat sink or cold plate, which is cooled with a cooling fluid.

b. Wolgemuth et al. teaches away from using spring clips.

Wolgemuth et al. uses threaded fasteners 44 to permit the base plate of a power electronics component to be secured to the surface of a cold plate, as disclosed in column 5, lines 1-15. The threaded fasteners require the machining of holes and the sizing of fasteners to attach the power electronics to the cold plate. The spring clips of the present invention are superior in function to screws or other threaded fasteners. Unlike screws or other fasteners, the clips are self-adjusting and will not loosen or back out over time and also mitigate creep.

2. Larson et al.

a. In general, Larson et al discloses a two-phase liquid cooling system in a container structure.

b. Larson does not disclose a liquid proof seal as claimed in the present invention.

Larson discloses a self contained heat-piping/heat sink system consisting of an evaporator, cooling tubes, and a condenser unit. As shown in Figures 4-6, the evaporator system 5, is self contained system with and O-ring 32 to contain the liquid and vapor states of the coolant. The clips 52 and 54 merely attach the chip 10 to the evaporator 5, as disclosed in column 7, lines 39-44. The clips 52 and 54 do not form a liquid proof seal, as the liquid is completely self contained in the evaporator 5.

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column 7, lines 39-44. The clips 52 and 54 do not form a liquid proof seal, as the liquid is completely self contained in the evaporator 5.

3. The suggested combination of Gospodar and Nyfelt by the Examiner is improper.

Wolgemuth et al. specifically teaches away from using clips. The suggested combination of the Examiner is improper, references cannot be combined where the reference teaches away from their combination. See MPEP Section 2145.

4. The combination of Wolgemuth et al. and Larson et al. is inoperable.

Wolgemuth et al. teaches away from using clips to attach a heat sink to power electronics. There is no suitable mechanical interface in Wolgemuth et al. for the clips of Larson et al., as there are only threaded holes in Wolgemuth et al. The structure and threaded holes of the Wolgemuth system do not have the capability to accept any types of clips. An attempt to combine Gospodar and Nyfelt would generate a nonfunctioning control system.

In establishing a *prima facie* case of obviousness, the Examiner must establish that: there is a suggestion or motivation in the art to combine the references; there is a reasonable expectation of success; and the prior art references must teach or reference all the claim limitations. The prior art cited by the Examiner, singly or in combination does not teach or suggest the present invention and in fact teaches away from the present claimed invention.

If the Examiner relies on personal knowledge that the apparatus of the present invention is obvious in light of the cited art, Applicants respectfully request support for this assertion in the form of an affidavit that shall be subject to contradiction or explanation by the affidavits of the Applicant and other persons under 37 C.F.R. 1.104 (d)(2).

CONCLUSION

The entire Final Office Action dated January 21, 2003, has been carefully reviewed and this response is submitted as being fully responsive thereto. In view of the preceding remarks, Applicants respectfully submit that Claims 1-11 are in condition for allowance and respectfully

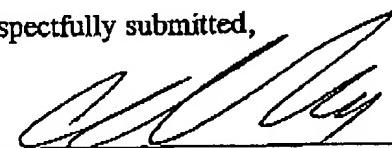
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request such action at the Examiner's earliest convenience. If the Examiner believes that personal contact would be advantageous to the disposition of this case, he is requested to call the undersigned at his earliest convenience.

If for some reason a fee needs to be paid, please charge our Deposit Account No. 07-0960 for the fees which may be due.

Respectfully submitted,



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